

ENERGY AND WATER DEVELOPMENT APPROPRIATIONS FOR FISCAL YEAR 2009

WEDNESDAY, APRIL 9, 2008

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:33 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Byron L. Dorgan (chairman) presiding.

Present: Senators Dorgan, Murray, Domenici, Bennett, and Craig.

DEPARTMENT OF ENERGY

STATEMENT OF HON. JAMES A. RISPOLI, ASSISTANT SECRETARY FOR ENVIRONMENTAL MANAGEMENT

OPENING STATEMENT OF SENATOR BYRON L. DORGAN

Senator DORGAN. Calling the hearing to order. This is the Senate Appropriations Subcommittee on Energy and Water Development. The hearing today is an oversight hearing on the fiscal year 2009 budget request for the Office of Environmental Management and the Office of Civilian Radioactive Waste Management.

We're here to take testimony from the two program offices that I just indicated. One is the Government's clean up of the cold war legacy and the other is the ultimate disposal of nuclear waste. This year's budget request of \$5.5 billion for the Environmental Management Program represents the fourth straight year that President Bush has reduced the clean up budget and the strain is showing.

The fiscal year 2009 request is down \$167 million from fiscal year 2008. And that's down \$1.75 billion from 2005. It's no coincidence that at the same time the White House has cut this budget, the U.S. Government's third largest liability, the environmental clean up liability has grown by 25 percent to \$342 billion.

Mr. Rispoli has indicated that this program will not and cannot meet the legally mandated clean up milestones because there's not enough money. We've learned that EM will miss 23 legal milestones and lay off, we believe, upwards of 600 people solely because of a lack of funding. In his statement before the House Energy and Water Subcommittee last month, Mr. Rispoli estimated that the EM program may need \$900 million more to meet all of its requirements in 2009.

In spite of the shortfall in this particular area, the Department of Energy has submitted a budget to the Congress that is \$1.1 billion higher than in 2008. The Office of Science has proposed an increase of \$750 million. National Nuclear Security Administration increase of almost \$300 million. Even Mr. Sproat's office has an increase of over \$100 million in 2009. I might also say that with respect to water funding, the Bureau of Reclamation and the Corps of Engineers, the President requests a \$1 billion cut in funding in this year.

The legal requirement of mandating the clean up is something that we ought not take lightly. It seems to me, with its budget recommendations, the Department shrugs its shoulders and wrings its hands and talks about hard decisions. But frankly, I don't think it is the right decision to decide that we're not going to meet our mandated requirements on clean up.

The legal milestones that are mentioned in the 2009 budget for Mr. Rispoli, are milestones that were negotiated long ago. And they are subject to some technical problems that make some of them unachievable. But that's true for some. It is not true for all the requirements. The fact is the administration is not asking for the funding to meet 23 milestones that are perfectly achievable in 2009, milestones for which we have made a commitment.

I wanted to point out that with this clean up budget work on contaminated soil and ground water around the EM complex will not be dealt with for decades to come. Meanwhile the EM will literally spend millions of dollars propping up old buildings hoping that they will stay up long enough to be torn down safely. That seems Byzantine to me.

If anyone thinks that the under funding of the EM is the right decision I would point out that the EM is becoming the choke point on modernizing both the National Nuclear Security Administration's and the Office of Science's complexes. Both organizations have announced, for example, ambitious plans to bring about technological capability into the 21st century at Oak Ridge, Tennessee. Yet both programs are being stymied because Environmental Management doesn't have in its base line the \$5 billion needed to tear down and clean up Oak Ridge by 2015.

Mr. Rispoli, I want to recognize your hard work over the last 3 years in trying to get the cost and scope and schedule of 80 clean up projects under control. I think that's been good work. And I want to recognize that.

But I must say that I'm very disappointed that that work has not been rewarded by the Office of Management and Budget and the White House. In the budget that you and I know, in the Appropriations request, you and I know, is far short of what you need to do your job. For all of your effort, the administration and the Office of Management and Budget have sent us recommendations to cut your budget by \$1.75 billion over the last 4 years even as the responsibilities and the commitments have grown.

Today we'll hear from Mr. Sproat on the status and the progress of the Yucca Mountain disposal site. His request for \$495 billion is \$108 million above the 2008 appropriation. Mr. Sproat and his organization have a lot of work ahead of them. They have a legal

mandate to attempt to develop a disposal site for both civilian reactor fuel and defense nuclear waste.

Mr. Sproat, I know you recognize your program has a lot of challenges and some problems to overcome before it can claim victory. My understanding is that the first is getting your license application to the Nuclear Regulatory Commission. I understand you intend to submit that in just a few months, perhaps no later than June 30, of this year. But that will, I'm sure, be scrutinized and challenged by many who hold the position that Yucca Mountain is not the right solution for our Nation's nuclear waste program.

I want to thank both of you for coming today. These are complicated programs, and important programs that Congress has to think through carefully. The White House and the Budget Office have given us their evaluation, and now it is our turn to evaluate. We appreciate the work that both of you do, and we appreciate both of you being here today. Senator Domenici.

OPENING STATEMENT OF SENATOR PETE V. DOMENICI

Senator DOMENICI. Thank you very much, Mr. Chairman. And thanks to our two witnesses.

Mr. Rispoli, you have the difficult job of cleaning up the contaminated sites and disposing the nuclear waste throughout the complex. This budget, however, is not up to the task. It simply provides insufficient resources to do the job.

In fact this budget request is one of the lowest I've seen during my tenure as chairman or ranking member. More than a decade is the amount of time that I have spent watching these budgets. And never have I seen one that misses the mark so much. Well below 2005–2006 when the Congress provided an excess of \$7 billion for environmental clean up efforts.

And when those budgets were in that ballpark, your Department was doing excellent work at re-prioritizing and doing some exciting things. Included in that was the closure of Rocky Flats, a rather important and outstanding achievement. But you're not going to have outstanding achievements with budgets as small as this one.

As a result of these low funding levels it appears that the Department is resorting to creativity to cover its shortfalls. I have begun to hear about "acceleration" strategy, similar to those of your predecessors. You promised immense savings by accelerating clean ups in order to dramatically shorten the overall clean up schedule.

I understand that things like this must be tried. And I welcome an opportunity to hear from you how you intend to do that. I'm still waiting to see the savings on the closure of Rocky Flats materialize in investments in plutonium missions at Los Alamos.

While I don't believe there is any substitute for providing adequate funding for major clean up sites. I can't blame you for trying to find ways to prioritize clean up based on risk. If we would have done that from the beginning and stuck with it, we'd be much further along than we are now. But it's very difficult to change horses in midstream, especially not to have the money for ordered clean ups, court ordered agreements.

I'll just take a minute on New Mexico because you will hear much about this unless we're able to find some money. Your budget again fails to provide adequate funding to my State for milestones

negotiated between the DOE and State of New Mexico. You're aware of that.

Each year the gap grows. And I have to do everything within my power, seek the help of the chairman to try to find the shortfall. This year I'm not confident that we will be able to find \$100 million needed to clean up, in compliance with the agreement you negotiated with New Mexico. I hope you can tell me something to the contrary on the witness stand.

Now let's talk a minute about nuclear waste with you. You've done a great job. You're a very enthusiastic leader and that's what we needed. Sandia took a very big job when they agreed to use their personnel and their expertise to try and get you a document that could be filed for a license.

With regard to Yucca Mountain. Everybody knows that I strongly favor nuclear power and expanding its use as an emissions free source of load generation. However, I believe the current strategy limiting our policy option to a permanent repository for the disposal of spent fuel is deeply flawed. I believe this path will prove to be the highest cost solution. And it fails to take advantage of recycling, which would maximize our energy resources and minimize our waste requirements.

Nobody in the world is putting spent fuel rods underground as a way of getting rid of waste. Nobody is even planning to take spent fuel rods and putting them in a repository for any long period of time as a means of disposing of waste. Why? Because spent fuel rods are loaded with energy.

Only 3 percent of the energy has been used and 97 remains. And that's foolhardy to build a plan as we have if it would have even worked, if we would have gotten it through the Congress. To put spent fuel rods away has almost reached a point where it's unfathomable.

I would like to say to the chairman and for this record that we have to pursue a comprehensive policy on waste. And I will be introducing legislation, Mr. Chairman. I will show it to you and share it with you, which will provide our country with an alternative pathway to address commercial spent fuel and not letting our policy to Yucca Mountain, Yucca only approach.

My legislation will authorize a portion of the nuclear waste fund to support the development of spent fuel storage and reprocessing facilities. Some of these funds would be used by DOE to renegotiate spent fuel storage agreements with local communities to store and recycle spent fuel to utilize untapped energy and to minimize the waste volumes. I will also propose the Government be a full partner and sharing in the cost of developing the model licenses for commercial reprocessing facilities. Such model approaches would apply to existing as well as any more advanced recycling approaches. Should these facilities become available, DOE should be authorized to enter into long-term service contracts with private entities like to construct and operate reprocessing facilities.

Mr. Sproat, I know that you have worked hard to manage Yucca. And the people at Los Alamos who work with you deserve every credit for taking something that was more gone than breathing life into it. The question now is, is it adequate for our country, or not. Should we proceed with it, or not?

And I have just stated as best I could in a minute and a half what I think we should do. And obviously I will be ready with a full bill soon. Thank you very much, Mr. Chairman.

Senator DORGAN. Senator Bennett?

STATEMENT OF SENATOR ROBERT F. BENNETT

Senator BENNETT. Thank you, Mr. Chairman. Assistant Secretary Rispoli and Director Sproat, I appreciate your taking the time to come before the committee. I come in listening to Senator Domenici talk about clean up.

It will come as no surprise to you that I want to talk about clean up. Once again the project in Utah to renew uranium meltings from Moab and I know your staff is doing the best you can to keep us up to date on this. I simply want to make a few observations on this so that no one thinks that I've forgotten about it or that we've lost track of it.

I'm pleased that you recently amended the record of decision to include trucking as a way of moving this material. It creates some problems in the State of Utah. But we will resolve those problems, primarily the need to have a bigger road.

We will respond to that. It gives us additional flexibility than the pure railroad solution of how to move the tailings. And I'm glad to see us go down that road.

Now as you remember I strongly objected to the Department's timeline of 2028 as the date for completing this project. And with the support of this subcommittee and the Defense subcommittee, we directed the Department to finish the project by 2019. I simply want to make it clear, again, that this is not a wish. This is a Congressional mandate and the Congress has spoken. And 2019 is the date.

Now as part of the mandate the Appropriations Committee gave you 180 days from the date the President signed the bill to prepare a report on the funding requirements you will need to meet the date of 2019. And I assume that you're anxiously working on that report. And I look forward to receiving it sometime this summer when it's finished.

Now this project started out with a cost of \$80 million when I first came to the Senate and it first came to my attention. The current price tag attached to it is \$800 million. So it's gone up. It's a neat symmetry. It's gone up 10 times in 10 years.

Now I hope we don't have that same kind of acceleration. But I do think we probably will see some additional acceleration and we need to know in advance as much as we can know. We need to have accurate figures as quickly as we can get them so that we can appropriate accordingly.

So, I look forward to working with you on the project. And want to be as helpful as I can. I appreciate the efforts that you have put into that. And with that parochial opening statement, Mr. Chairman, I have nothing further.

Senator DORGAN. Senator Bennett, thank you very much. We will hear now from the Honorable James Rispoli. Mr. Rispoli, you may proceed. Your entire statements for both of you will be part of the permanent record. And we would ask that you summarize.

STATEMENT OF HON. JAMES A. RISPOLI

Mr. RISPOLI. Thank you, Mr. Chairman. Good morning, Mr. Chairman, Senator Domenici, Senator Bennett, members of the subcommittee. I also understand that a group of students from Jamestown in the State of North Dakota is here with us today. And I just thought I would mention that and welcome them. This is a great opportunity, I think, for these students to see a part of the appropriations process that's absolutely vital.

Senator BENNETT. Could you speak up a little, Mr. Rispoli?

Mr. RISPOLI. I think it's important to——

Senator BENNETT. That's better.

Mr. RISPOLI [continuing]. For this group of students from Jamestown, North Dakota to be here today because they get to see a part of the appropriations process that is so vital to the way our Government operates. So I welcome the students from Jamestown.

Senator DORGAN. Mr. Rispoli, I did not know that they were in the room. But let me ask those from Jamestown to stand up and wave at us.

They are all experts on the issue of waste disposal, and environmental management. They must be, I think you're with the Close Up groups. So we welcome you here.

I know I'm meeting with a Close Up group later today. So that must be the group. We welcome all of them here.

Mr. Rispoli, thank you.

Mr. RISPOLI. Well I would be remiss then, Mr. Chairman, by not pointing out that our budget person, Cindy Rheaume here is also from the great State of North Dakota.

Senator DORGAN. Well, Cindy, welcome. Would you like to testify for a while?

Mr. RISPOLI. So clearly the State of North Dakota is well represented in the room today. I'm pleased to be here and would like to note this year marks the 20th year since the EM program was first established. Clearly a lot has been accomplished and a lot more needs to be done.

When I first appeared before this subcommittee 2 years ago, I pledged that safety would remain our first priority. I've stated that no milestone is ever worth an injury to our workforce. Today I'm pleased to report that worker injuries have been reduced by 50 percent during the past 3 years and that our injury rate is less than 10 percent of that in the commercial waste disposal and construction industries. I think that's very, very notable for the people that are doing the work for all of us and for our country.

Also, after I was sworn into this position, I set about to refine all of our cost and schedule baselines which guide every project. During the past 18 months, all, that is all, EM projects, both line item and clean up have undergone independent audits to verify their costs and schedules as valid and reasonable. Today our project estimates and assumptions for the entire EM portfolio, I believe can be viewed with far greater confidence than ever before.

At that time I also stated that our goal was for the cost and schedule performance of at least 90 percent of our projects to be on target or better than on target. In July 2005, 17 of our projects

were not on cost or on schedule. That is only 51 percent of all projects at that time were on target.

Today our portfolio, which currently numbers more than 65 projects, consistently meets that 90 percent goal. And we actually track this regularly. We are up near 100 percent on cost, on schedule with the entire portfolio, which I think is a notable accomplishment for all the people that work in this program.

Turning now to our fiscal 2009 budget request, our request is for \$5.53 billion. And it continues to be based on the principle of prioritizing risk reduction across the entire complex.

Let me address an issue that I know has caused concern to several Members of Congress and that is that this request has broken with past understandings related to the Department's clean up budget strategy. I would like to quote part of testimony from my predecessor, Assistant Secretary Jessie Roberson before this subcommittee in 2003 and 2004. She testified that after a period of accelerated funding peaking in fiscal year 2005 and here I quote, "we anticipate funding will then decline significantly to about \$5 billion in 2008." Viewed from this perspective and with that quote in mind, our fiscal 2009 budget is about a half billion dollars more than what she projected 5 years ago.

The administration recognizes that with the budget before you as you all have noted, some of the milestones contained in our clean up agreements are in jeopardy of being missed. It's important to note that other milestones are in jeopardy due to technical reasons regardless of funding. As a result we had to make very careful decisions regarding our priorities. The regulatory agreements that guide our work have been and remain important measures of progress. The Department's strategies continue to focus on clean up that will produce the greatest environmental and safety benefit and the largest amount of risk reduction.

I would like to just take a minute to share. I believe you all have photographs before you, but just share a couple of those with you. The first photograph is actually from Senator Domenici's home State. It's the underground of the Waste Isolation Pilot Plant. And it's, I think, a very good photo of the remote-handled waste placement machine that places the remote-handled waste into the horizontal bore holes in the walls.

The Horizontal Emplacement and Retrieval Equipment Pushing Remote-Handled Transuranic Waste into Boreholes in WIPP Disposal Room Walls



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

www.em.doe.gov

The second photograph is the 300 Area of Hanford. And this photograph shows by the "X's" through the buildings in the photograph how many of the buildings have actually been taken down. It's an amazing accomplishment. A total of 140 structures have been safely removed just in this area alone.

**Hanford Site River Corridor
300 Area – January 2008**



✗ Complete ✗ In Progress



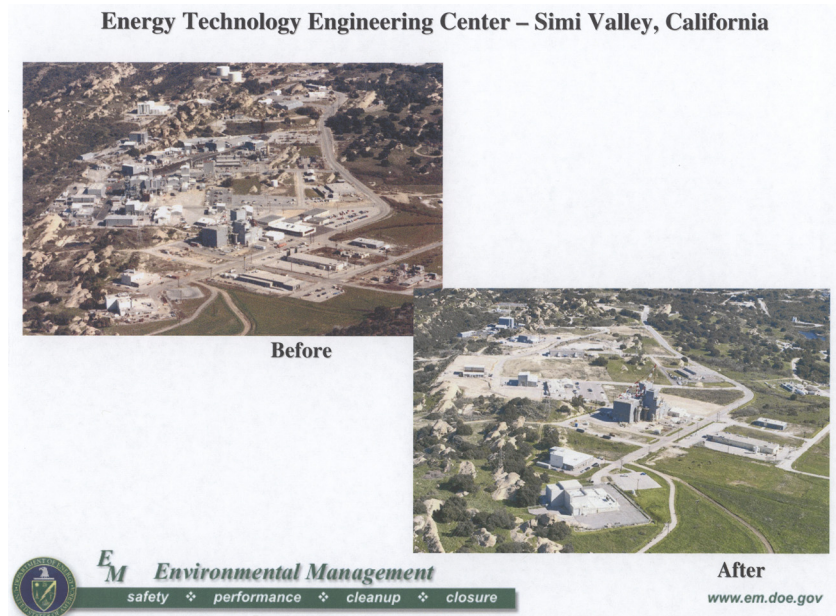
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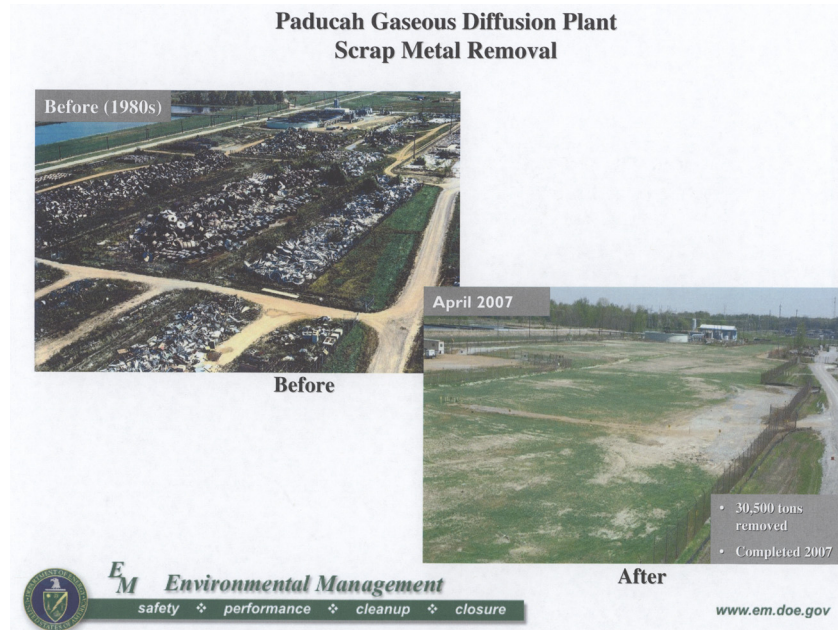
www.em.doe.gov

The third photograph is a photograph of the Energy Technology Engineering Center in California. And this is another example of

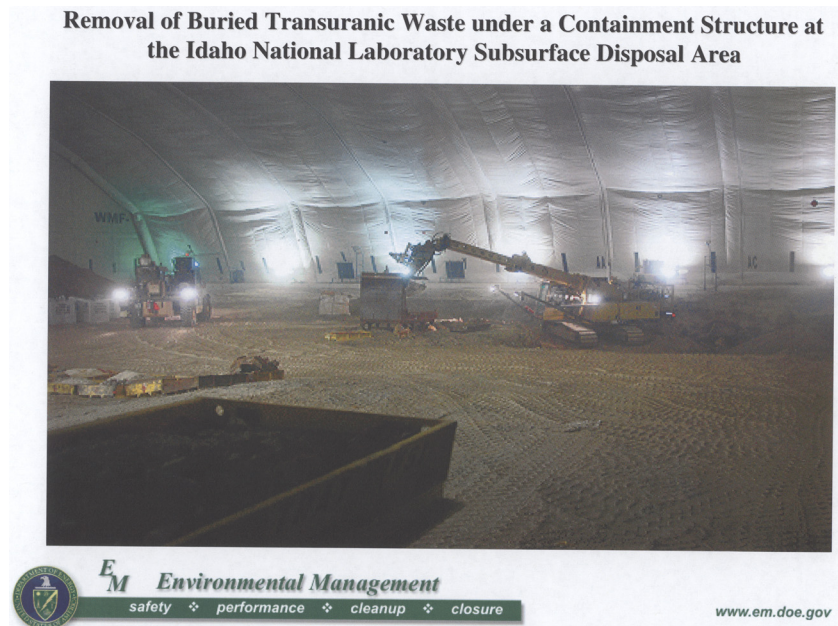
a before and after shot that shows that more than 250 buildings have been taken down in that location.



The fourth slide is before and after at Paducah, Kentucky that shows a huge metal waste pile. A blight on the entire area that has been totally removed. Enough metal equal to the displacement of a World War II battleship.



And the last slide is of DOE contractors of Idaho removing transuranic waste under a structure, while the structure provides the safety so that this waste does not become airborne and then migrate off the site.



Mr. Chairman, I'm proud of the progress our 34,000 contractors and Federal employees have made in recent years. And the wise and secure foundation we have built for the future. This subcommittee has provided the critical guidance that has enabled us to accomplish the successes we've had to date.

PREPARED STATEMENT

I look forward to working with you in my remaining time at the Department. And I thank you for supporting our efforts to reduce risk to our citizens, our communities and our Nation. Thank you and I'm happy to answer your questions.

[The statement follows:]

PREPARED STATEMENT OF HON. JAMES A. RISPOLI

Good morning Mr. Chairman, Senator Domenici, and members of the subcommittee. I am pleased to be here today to answer your questions on the President's fiscal year 2009 budget request for the Department of Energy's Office of Environmental Management (EM). I want to thank the subcommittee for your support of the EM program.

The year 2009 will mark 20 years since the EM program was first established just as the cold war was coming to an end. While the budget we are considering today is oriented toward the future, I think it is appropriate to begin today by considering how much this program has accomplished since its creation.

At that time, nearly 50 years of nuclear weapons production and energy research had left a legacy of enormous amounts of waste and environmental contamination at more than 100 sites across the country. The extent of the risk to our citizens and communities was literally unknown, and certainly many of the processes and technologies to reduce that risk had not yet been invented.

Since then, we have closed 86 of 108 sites nationwide. The national "footprint" of the Department's nuclear complex and its accompanying risks has been drastically reduced, and eliminated altogether from many States. We have packaged and safely stored all of the Nation's excess plutonium inventory. We have pioneered new technologies that have allowed us to make progress retrieving millions of gallons of tank waste, and to safely dispose tens of thousands of cubic meters of transuranic waste. In fiscal year 2006 and fiscal year 2007 alone, we demolished approximately 500 buildings (nuclear, radioactive, and industrial) as part of our decontamination and decommissioning (D&D) projects. And finally, we have made great strides in protecting groundwater using innovative treatment systems.

Today marks likely the final time that I will be testifying before you regarding our program's budget request. When I first assumed the position of Assistant Secretary for Environmental Management in August 2005, I set out to institute a rigorous project management system, and, above all, to continue to emphasize safety and risk reduction. I sought to refine and independently verify our project baselines—the estimates of scope, schedule and cost that guide every project—to ensure that they are realistic and executable. I will discuss our successes in this area as well as our ongoing challenges.

The fiscal year 2009 budget request is once again built on the principle of prioritizing risk reduction across the entire complex for which EM is responsible, supported by our four guiding tenets of safety, performance, cleanup and closure. The budget request totals \$5.528 billion, a decrease of \$167 million from the fiscal year 2008 appropriation. With 90 percent of our budget addressing mission activities at our cleanup sites, more than half of fiscal year 2009 funding will go towards our highest-risk activities of stabilizing tank waste, nuclear materials and spent nuclear fuel; another one-quarter of the budget will be devoted to cleaning up contaminated soil, groundwater, and excess facilities, and about 14 percent going to manage wastes streams related to those cleanup activities. The remaining 10 percent covers mission activity support, including costs for program oversight provided by our Federal personnel, and technology development.

Mr. Chairman, let me point out that the administration recognizes that EM's fiscal year 2009 budget request of \$5.528 billion is based on, and would implement, an environmental management approach under which the Department would not meet some of the milestones and obligations contained in the environmental agreements that have been negotiated over many years. It is also important to recognize

that some upcoming milestones will be missed regardless of the approach that is chosen and its associated level of funding.

Moreover, some of the relevant agreements were negotiated many years ago, with incomplete knowledge by any of the parties of the technical complexity and magnitude of costs that would be involved in attempting to meet the requirements. This incomplete knowledge, coupled with other issues including contractor performance, overly optimistic planning assumptions, and emerging technical barriers, also have impeded the Department in meeting all milestones and obligations contained in the environmental compliance agreements.

In planning its environmental cleanup efforts and developing the budget for those activities, the Department seeks to focus on work that will produce the greatest environmental benefit and the largest amount of risk reduction. The Department strongly believes that setting priorities and establishing work plans in this way is the most effective use of taxpayer funds and will have the greatest benefit, at the earliest possible time, to the largest number of people.

In determining these priorities, the Department works closely with the Federal and State regulators, and will seek the cooperation of those entities in helping evaluate needs and focus work on the highest environmental priorities based on current knowledge, particularly where doing so necessitates modification of cleanup milestones embodied in prior agreements with the Department.

MANAGING OUR PRIORITIES

When I appeared before this subcommittee 2 years ago, I pledged that safety would remain our first priority. All workers deserve to go home as healthy as they were when they arrived at the job in the morning. No milestone is worth any injury to our workforce. I am pleased to say that EM's safety performance continues to be outstanding. As a result of collaborative efforts by DOE and our contractors, worker injuries have been reduced by 50 percent during the past 3 years. Currently EM's injury rate is less than 10 percent of comparable commercial waste disposal and construction industries.

Another priority we discussed 2 years ago was my goal of making EM a high-performing organization by every measure. This goal has required us to look critically at every aspect of how we plan, procure, execute and manage every project under our jurisdiction, and how we align every dollar the taxpayers provide to achieving environmental cleanup goals.

On the subject of our management practices, in September 2005, Congress asked NAPA to undertake a management review of EM, including an assessment of EM's human capital. NAPA's study, conducted over a period of 18 months, was very interactive; we opened our operations to NAPA for scrutiny and in turn have embraced and implemented nearly all of NAPA's proposals.

Most of all, we were gratified that NAPA concluded in its final report issued this past December that EM, "is on a solid path to becoming a high-performing organization." We know we have much remaining to be accomplished, but we take NAPA's conclusion as a sign that we are, in fact, headed in the right direction with regard to how we function as an organization.

A budget is only as good as its planning basis. Our request is developed from our project baselines that define the scope, cost, and schedule for each project, and I have much to report to you in this area. When I assumed this position, I was concerned that the accepted baselines for many of our projects were unrealistic. The reasons for this included overly aggressive assumptions in the technical and regulatory arenas, increasing costs of materials and simple underperformance.

Since that time, our sites have undergone an independent review to verify the reasonableness of the scope, cost, and schedule for each project. This review also documented assumptions and associated risk management plans that supported baseline development. As a result, all near-term baselines up to 5 years have now been independently reviewed and verified, while long-term cost ranges have been determined to be reasonable. As we move forward in the fiscal year 2009 budget process, I believe that the subcommittee can view near-term cost assumptions associated with our projects with greater confidence than ever before.

The majority of EM sites do, in fact, include baselines with completion dates beyond 2013. Through a collaborative process with our field sites, EM is seeking to define aggressive but achievable strategies for accelerating cleanup of distinct sites or segments of work that involve multiple sites. Moreover, it is important to note that EM's site cleanup activities are managed as one integrated national program; the work and risks associated with each site are inherently interrelated with that at other sites. Thus, we continue to evaluate and implement cross-site risk priorities and cleanup activities.

In 2005, we set out to integrate proven project management tools into our business processes, and address our shortcomings in project management by using DOE and industry-standard business management tools. I stated that you in 2006 that our goal was for at least 90 percent of our projectized portfolio to perform on-target, or better than on-target regarding cost and schedule. I am pleased to report that we now consistently meet that goal—in excess of 90 percent of our portfolio, currently numbering more than 65 independently audited projects, consistently performs within cost and schedule targets.

As an “acquisition” organization, EM accomplishes its mission through procurement and execution of our projects. Since the contract serves as the principal agreement governing how a project is executed between DOE and the contractor, contract and project management must be seamlessly managed in parallel. To oversee this process, about 18 months ago, we implemented an organizational structure, including the creation of a Deputy Assistant Secretary for Acquisition and Project Management. This position integrates the two functions of procurement planning and project management, helping us to professionalize the procurement process so that we learn from, and improve upon, each contract experience. Moreover, it provides us with strong management oversight after the contract is awarded. We are striving to make EM nothing short of a “Best-in-Class” organization for project and contract management and engineering and technology.

The fiscal year 2009 Technology Development and Deployment Program will be highly focused and concentrate its investments in EM high priority cleanup areas, including radioactive tank waste, soils and groundwater remediation, and deactivation and decommissioning excess facilities. Best-in-class performers, including other Federal agencies, the national laboratories, the university system, and private industry will be utilized to conduct the Technology Development and Deployment scope.

The EM program has always required a strong technology component to accomplish its mission, one that is focused on developing and deploying technologies to enhance safety, effectiveness, and efficiency. As we look ahead to our cleanup work, we face the ongoing challenge of maturing and integrating technology into first-of-a-kind solutions. An Engineering and Technology Roadmap has been developed to address this need. The Roadmap identifies the technical risks the EM program faces over the next 10 years, and strategies to address the risks. EM’s validated baselines are a powerful tool that allows EM managers to identify the points at which new knowledge and technology can be efficiently inserted into EM cleanup projects to address risks.

BUDGETING FOR OUR PRIORITIES

Before I discuss the fiscal year 2009 budget request, allow me to draw attention to the significant cleanup progress achieved recently. We have:

- Completed stabilization and packaging for all plutonium residues, metals, and oxides and begun consolidation of all of these materials at the Savannah River Site (SRS);
- Produced for disposition more than 2,500 cans of vitrified high-level waste from highly radioactive liquid wastes;
- Completed retrieval and packaging for disposal of more than 2,100 metric tons of spent nuclear fuel from K-basins at Hanford to protect the Columbia River;
- Shipped more than 50,000 cubic meters of transuranic (TRU) waste from numerous sites to the Waste Isolation Pilot Plant (WIPP) for permanent disposal, including 25,000 out of a planned 30,000 drums from SRS;
- Disposed of nearly one million cubic meters of legacy low-level waste and mixed low-level waste;
- Eliminated 11 of 13 high-risk material access areas through material consolidation and cleanup;
- Cleaned up the Melton Valley area at the Oak Ridge Reservation and continued decontamination and decommissioning of three gaseous diffusion buildings at Oak Ridge; and
- Disposed of more than 8,500 tons of scrap metal from Portsmouth.

The program has made significant progress in shifting focus from risk management to risk reduction. This focus on measurable risk reduction continues to be the guiding principle behind the development of our fiscal year 2009 budget request.

To strike the balance that allows EM to continue achieve risk reduction and pursue cleanup goals, we propose funding the following risk reduction and regulatory activities in priority order:

- Stabilizing radioactive tank waste in preparation for treatment (about 32 percent of the fiscal year 2009 request);

- Storing, stabilizing, and safeguarding nuclear materials and spent nuclear fuel (about 18 percent of the fiscal year 2009 request);
- Disposing of transuranic, low-level, and other solid wastes (about 14 percent of the fiscal year 2009 request); and
- Remediating major areas of EM sites, and decontaminating and decommissioning facilities (about 26 percent of the fiscal year 2009 request).

FISCAL YEAR 2009 BUDGET REQUEST

The Department's fiscal year 2009 budget request for the Office of Environmental Management is \$5.528 billion. The request consists of three appropriations, Defense Environmental Cleanup, Non-Defense Environmental Cleanup, and the Uranium Enrichment Decontamination and Decommissioning Fund.

For fiscal year 2009, EM's funding priorities to best address our environmental cleanup challenges are:

- Conducting cleanup with a "Safety First" culture that integrates environment, safety and health requirements, and controls into all work activities to ensure protection to the worker, public, and the environment;
- Establishing a disposition capability for radioactive liquid tank waste and spent nuclear fuel;
- Securing and storing nuclear material in a stable, safe configuration in secure locations to protect national security;
- Transporting and disposing of transuranic and low-level wastes in a safe and cost-effective manner to reduce risk;
- Remediating soil and groundwater in a manner that will assure long-term environmental and public protection; and
- Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities while remediating the surrounding environment.

Examples of milestones and planned activities for fiscal year 2009 by site-specific categories are:

Idaho

- Meet requirements in the Idaho Settlement Agreement to ship stored contact-handled and remote-handled transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP).

The Idaho National Laboratory will continue characterizing, treating, packaging, and transporting of contact-handled and remote-handled TRU waste to WIPP.

- Continue construction of the sodium-bearing waste treatment facility to support tank waste retrievals.

The overall objectives of this project are to treat and dispose of sodium-bearing tank wastes, close the tank farms tanks, and perform initial tank soil remediation work. Construction and operation of the sodium-bearing waste treatment facility will reduce potential risk to human health and the environment by preventing the potential migration of contamination into the Snake River Plain Aquifer, which is a sole-source aquifer for the people of Southeastern Idaho.

- Complete the transfer of all EM-managed spent nuclear fuel to dry storage.

EM will continue to promote the safe and secure receipt and dry storage of spent fuel to protect the Snake River Plain Aquifer.

Los Alamos National Laboratory

- Promote soil and water remediation.

The Los Alamos National Laboratory (LANL) Soil and Water Remediation Project scope includes identification, investigation, and remediation of chemical and or radiological contamination attributable to past Laboratory operations and practices. In order to support the project scope, in fiscal year 2009 EM plans to: complete required groundwater monitoring within eight watersheds, install four regional aquifer monitoring wells, complete four soil cleanups, including Material Disposal Area R in Technical Area-16, and continue remediation of tanks at the Material Disposal Area A in Technical Area-21.

- Continue TRU waste shipments to WIPP.

The Solid Waste Stabilization and Disposition Project includes the treatment, storage, and disposal of legacy TRU and mixed low-level waste generated between 1970 and 1999 at LANL. The end-state of this project is the safe disposal of legacy waste from LANL. In fiscal year 2009, EM plans to continue characterization and certification of TRU waste for shipment to WIPP and continue services and safety-related activities to maintain the waste inventories in a safe configuration and within allowable Material-at-Risk limits established for the site.

Moab

—Complete necessary transportation upgrades and tailings handling infrastructure and initiate movement of uranium tailings off the Moab site.

The relocation of the mill tailings at the Moab site to a Department of Energy constructed disposal facility near Crescent Junction, Utah, is necessary. In fiscal year 2009, EM plans to complete the rail upgrades between Moab and Crescent Junction and begin transporting tailings to Crescent Junction from Moab. Moreover, the Record of Decision has been amended to allow the tailings to be transported by either truck or rail. In addition, EM will continue disposal cell excavation at Crescent Junction.

Oak Ridge

—Continue decontamination and decommissioning (D&D) of K-25 Process Building.

The gaseous diffusion plant comprises one of the largest complex of buildings in the world. In fiscal year 2009, EM will continue to vent, purge, and drain, characterize, remove of high risk equipment and carry out required foaming activities for the east and north wings of the K-25 process building. Demolition of the west wing of the K-25 process building will be conducted.

—Complete final design for the Uranium-233(U-233) down-blending project and begin Building 3019 modifications.

The U-233 inventory in Building 3019 will be down-blended as expeditiously as possible to reduce the substantial annual costs associated with safeguards and security requirements and to address nuclear criticality concerns raised by the Defense Nuclear Facilities Safety Board (DNFSB).

—Process and ship contact-handled and remote-handled TRU waste to WIPP.

Approximately 300 cubic meters of contact-handled TRU debris and 100 cubic meters of remote-handled TRU debris will be processed for disposal at WIPP.

—Decontaminate and decommission (D&D) the Y-12 National Security Complex and Oak Ridge National Laboratory (ORNL).

Remediation of the Corehole 8 plume at ORNL and of mercury contamination at Y-12 will be performed. The on-site disposal cell for receipt of D&D debris and cleanup waste will be expanded.

Paducah

—Initiate operations of the Depleted Uranium Hexafluoride (DUF₆) Conversion Facility.

The DUF₆ conversion facility will convert depleted uranium hexafluoride into a more stable form, depleted uranium oxide, which is suitable for reuse or disposition. The depleted uranium oxide will be sent to a disposal facility or reused, the hydrogen fluoride by-products will be sold on the commercial market, and the empty cylinders will be disposed of or reused.

—Complete disposition of legacy waste.

The Paducah Gaseous Diffusion Plant is responsible for some of the waste streams that were generated by the United States Enrichment Corporation's operation of the Plant. The disposition of this legacy waste will reduce risk and storage costs and is critical to accelerating site cleanup.

—Reduce risk through focused cleanup of soil and waste.

The completion of characterization and disposition of recently discovered soil and rubble piles along the river and closure and disposition of all DOE Material Storage Areas will also aid in lowering the risk to human health and the environment.

Portsmouth

—Initiate operations of the DUF₆ Conversion Facility.

Similar to Paducah, the DUF₆ conversion facility will convert depleted uranium hexafluoride into a more stable form, depleted uranium oxide, for reuse or disposal. The depleted uranium oxide will be sent to a disposal facility or reused, the hydrogen fluoride by-products will be sold on the commercial market, and the empty cylinders will be disposed of or reused.

—Complete cold shutdown activities in the former gaseous diffusion operations facilities and award the D&D contract.

The transition of the Gaseous Diffusion Plant from cold shutdown to decontamination and decommissioning will continue. In addition, Portsmouth plans to complete X-701B oxidation injection system groundwater field treatment activities.

Richland

—Complete shipping of special nuclear materials from the Plutonium Finishing Plant (PFP).

The PFP complex consists of several buildings that were used for defense production of plutonium nitrates, oxides and metal from 1950 through early 1989. As part of the PFP cleanup, Richland's goal is to complete shipments of special nuclear materials off-site to the Savannah River Site and procure additional casks to support completion of the shipping campaign by the end of fiscal year 2009.

- Enhance groundwater remediation at the Central Plateau and along the Columbia River.

Over 50 years of weapons production at the Hanford site has left the groundwater contaminated by carbon tetrachloride, chromium, technetium 99, strontium, and uranium. EM is dedicated to protecting the groundwater resources at Hanford as well as the Columbia River, through deployment of innovative technologies in fiscal year 2009 to address all of the contaminants in the vadose zone and groundwater, with supporting investigations such as installation of new wells for monitoring and characterization, and geophysical logging to provide additional subsurface information on contaminant distribution.

- Cleanup of waste sites and facilities along the Columbia River Corridor including K-East Basin D&D.

The K Basins project is a high priority risk reduction activity due to its close proximity to the Columbia River. To date, we have completed the removal, packaging, and transportation of approximately 2,100 metric tons of degrading spent nuclear fuel, removal of an estimated 44 cubic meters of radioactively contaminated sludge, and the basin water is now being pumped out. In fiscal year 2009, the K-East basin will be completely demolished. The end-state of the K Basins cleanup will mean the removal of more than 55 million curies of radioactivity from near the Columbia River.

- Retrieve suspect contact-handled and remote-handled TRU waste from burial grounds and continue to ship to WIPP.

The Hanford Site contains thousands of containers of suspect contact-handled and remote-handled TRU waste, low-level waste, and mixed low-level waste. Activities planned in fiscal year 2009 are to retrieve 1,100 cubic meters of suspect contact-handled and remote-handled TRU waste from the low-level burial grounds, continue certification of transuranic waste, and dispose of on-site generated low-level and mixed low-level wastes at the mixed waste disposal trenches.

River Protection

- Manage the tank farms in a safe and compliant manner until closure.

The radioactive waste stored in the Hanford tanks was produced as part of the Nation's defense program and has been accumulating since 1944. To protect the Columbia River, the waste must be removed and processed to a form suitable for disposal and the tanks must be stabilized. To reach these goals, EM plans to enhance the Single-Shell Tank Integrity Program, continue to develop retrieval technologies and retrieve waste from approximately one tank per year, and continue to evaluate supplemental treatment technology, and interim pre-treatment capabilities.

- Advance in Waste Treatment and Immobilization Plant construction.

The Waste Treatment and Immobilization Plant (WTP) is critical to the completion of the Hanford tank waste program by providing the primary treatment capability to immobilize the radioactive tank waste at the Hanford Site. The WTP complex includes five facilities: the Pretreatment Facility, the High-Level Waste Facility, the Low-Activity Waste Facility, the Balance of Facilities, and the Analytical Laboratory. In fiscal year 2009, EM plans to continue construction of all of these facilities to achieve approximately 55 percent completion, while maintaining the viability of other supplemental treatment options. The end-state of this project will be the completion of the WTP hot commissioning and transfer of the facilities to an operations contractor to run the plant.

Savannah River

- Continue consolidation and disposition of special nuclear materials.

The receipt, storage, and disposition of materials at the Savannah River Site allows for de-inventory and shutdown of other DOE complex sites, providing substantial risk reduction and significant mortgage reduction savings to the Department. In fiscal year 2009, the Savannah River Site will complete the receipt of surplus plutonium from the Hanford Site, Los Alamos National Laboratory, and Lawrence Livermore National Laboratory. Also in fiscal year 2009, EM plans to operate H-Canyon/HB-Line to disposition special nuclear materials and begin processing of Savannah River Site's spent nuclear fuel in H-Canyon.

- Reduce radioactive liquid waste.

The mission of the tank waste program at Savannah River is to safely and efficiently treat, stabilize, and dispose of approximately 37 million gallons of legacy ra-

radioactive waste currently stored in 49 underground storage tanks. In fiscal year 2009, planned EM activities include: continue operation of Actinide Removal Project, Modular Caustic-Side Solvent Extraction Unit, and the Defense Waste Processing Facility, continue the construction of the Salt Waste Processing Facility; and prepare sludge batches in support of continued high-level waste vitrification. Activities are planned to free up additional tank space, such as treatment of organic waste in the 1.3 million gallon Tank 48 to return the tank to useful service.

Waste Isolation Pilot Plant

—Continue safe shipment, receipt, and disposal of contact-handled and remote-handled TRU waste.

WIPP in Carlsbad, New Mexico, is the Nation's only mined geologic repository for the permanent disposal of defense-generated TRU waste. In fiscal year 2009, the budget request supports up to 21 contact-handled TRU and up to 5 remote-handled TRU shipments per week from across the DOE complex.

CONCLUSION

Mr. Chairman, I am proud of the progress the EM program has made in recent years, both in terms of meeting the Nation's cleanup priorities, and in building the foundation for future efforts. I respectfully submit EM's fiscal year 2009 budget request and am pleased to answer your questions.

Senator DORGAN. Mr. Rispoli, thank you very much. Finally we will hear from Mr. Sproat. Mr. Sproat, you may proceed.

STATEMENT OF HON. EDWARD F. SPROAT III, DIRECTOR, OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

Mr. SPROAT. Good morning, Senator and good morning, members of the committee. And thank you very much for the opportunity to come this morning to address you about my office, the Office of Civilian Radioactive Waste Management and the President's 2009 request for the Yucca Mountain program.

But I'd like to start off with just recapping what I told this committee last year at this time in terms of what we planned to do in fiscal year 2008 with the President's budget request for fiscal year 2008, which was \$494.5 million. I told the committee at that time that with that money in this fiscal year we intended to deliver the license application for Yucca Mountain to the Nuclear Regulatory Commission no later than June 30, of this year. I also told the committee that we would certify the licensing support network the major litigation support database that the NRC requires by December 2007. I also said that we would complete the supplemental environmental impact statement.

I said we would deliver the report to Congress, that Congress requires on a need for a second repository. And I said we would revise and issue to file an environmental impact statement for the Nevada rail line in fiscal year 2008.

Now as the committee is very much aware, we ended up receiving from Congress \$386.1 million or \$108 million less than the President requested. And we received that at the end of the first fiscal quarter, or the first quarter of the fiscal year. Obviously it presented significant management challenges to my management team.

However, we have put in place significant improvements in the management approaches, management processes for our office. And I'm very pleased to be able to report to the committee that despite the \$108 million reduction in appropriations, we will meet or beat all of the deliverables schedules that we told this committee that we would provide at this time last year. So we are on schedule.

And we will deliver a high quality docketable license application to the Nuclear Regulatory Commission for the repository during the month of June of this year.

Now one of the things I would like to point out to the committee is that with that \$108 million reduction from the President's request in fiscal year 2008, on top of the \$100 million reduction from fiscal year 2007 we are not able to maintain the best achievable date for opening a repository of March 2017. That date is no longer achievable. And I'll talk a little bit in a minute about what we're doing to provide the committee a better understanding and a better forecast of when a repository could be open and under what conditions.

So let me turn to our fiscal year 2009 appropriation request, which is \$494.7 million or essentially a flat request compared to the President's request for fiscal year 2008. One of the things the committee may not or may be aware when I talked to you last year, I talked about, within the context of the best achievable date for opening a repository, what the cash flows, projected cash flows, were required to do that; to open by 2017.

And that cash flow included a projected budget request of \$1.2 billion for fiscal year 2009. And as the committee will note, we have not requested anywhere near that amount for fiscal year 2009. And we have limited our budget request to an amount that we need to support the license application review and defense in front of the Nuclear Regulatory Commission and to maintain certain critical path design activities, but we will not be able to maintain all of the critical path activities needed to support a 2017 opening date with this budget request.

And the reason that we haven't requested that \$1.2 billion is that based on our experience and the difficulties that this committee is very much aware of in the appropriations process that we've gone through in fiscal year 2007 and fiscal year 2008. We believe it's unrealistic to expect Congress to authorize a significant increase in my program's funding that's required to open the repository in the shortest possible time. Therefore what we are doing is we're rebaselining this program in terms of a new set of assumptions that assumes essentially flat funding during the license application defense process and then ramping up after the Nuclear Regulatory Commission gives the Department a construction authorization in 2011 or 2012.

So, just turning back to fiscal year 2009 with the budget request that's in front of you, we intend to defend the license application that we'll be submitting to the Nuclear Regulatory Commission. We'll begin some detailed design for the repository facilities itself. We're going to complete some of the contour mapping for the Nevada rail line. And we're going to continue with developing the Federal capability to actually oversee construction and operation of this repository as well as further development of the security and safeguards programs needed to run a high level waste repository under the Federal Government.

So, let me just close by addressing the issue of what is it going to take to actually be able to build this repository? It's very clear that under any scenario of recycling or non-recycling, we still will need a deep geological repository for both the defense level waste

and spent nuclear fuel and that funding required to build a repository will be at levels significantly higher than historical funding levels that this program has received in the past.

And that without a dependable funding source from the Nuclear Waste Fund, which was originally intended, it really becomes impossible to provide a new firm date to the committee as to when the repository could be open. And I'd like to remind the committee, based on my discussions with you last year at this time, that for each year beyond 2017 that we defer opening a repository, it's an additional half a billion dollars of potential taxpayer liability associated with the Government's non-performance on taking commercial spent nuclear fuel. And that our forecast that if we were opening a repository in 2017, that liability number was approximately \$7 billion and that would grow at about \$500 million a year beyond that date.

PREPARED STATEMENT

In summary what I'd like to say is that we have made substantial progress on this program over the last 2½, 3 years. I have a very high confidence level in the management team that I'll leave behind after I leave Government service to move this program forward. And that it is vitally important to this country that under any scenario of either open fuel cycle, closed fuel cycle, that we have a deep geologic repository. And I would respectfully request this committee to give serious consideration to the President's request to fund this program at the requested levels for fiscal year 2009.

Thank you very much. I'd be pleased to answer whatever questions the committee may have.

[The statement follows:]

PREPARED STATEMENT OF HON. EDWARD F. SPROAT III

Mr. Chairman and members of the committee, I am Edward F. Sproat III, Director of the Department of Energy's (DOE) Office of Civilian Radioactive Waste Management (OCRWM). I appreciate the invitation to appear before the committee to discuss the President's fiscal year 2009 budget request for my office which has the responsibility to design, license, construct, and operate the Nation's repository for the disposal of spent nuclear fuel and high-level radioactive waste, as defined in the Nuclear Waste Policy Act (NWPA) of 1982, as amended.

When I came to this committee last year, I outlined a number of specific deliverables that OCRWM would achieve in fiscal year 2008, assuming appropriation of the President's request of \$494.5 million, including:

- Submit a License Application for a Construction Authorization for a geologic repository for disposal of spent nuclear fuel and high-level radioactive waste at Yucca Mountain to the Nuclear Regulatory Commission (NRC) by June 30, 2008;
- Certify DOE's Licensing Support Network collection in accordance with NRC requirements and regulations by December 21, 2007;
- Complete the Supplemental Environmental Impact Statement (EIS) for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain;
- Perform the analysis and deliver the report to Congress required by the NWPA on the need for a second repository; and
- Complete the final EIS for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain.

Despite the President's request of \$494.5 million, the Congress appropriated \$386.4 million for OCRWM in fiscal year 2008, a reduction of \$108.1 million from the President's request. This large reduction, which occurred well into the fiscal year, contributed to significant management challenges, and following the fiscal

year 2007 appropriation which was approximately \$100 million less than the President's request, caused a reduction in force of approximately 900 personnel from the program. The cumulative impact of these significant appropriation reductions is that DOE is no longer able to maintain the best achievable opening date of March 2017 that I presented to the committee last year. However, because of significant improvements we have made in management practices and processes, we will be able to complete all of the deliverables for fiscal year 2008 that I promised the committee last year on or near schedule, including the submittal of the License Application to the NRC this June.

FISCAL YEAR 2009 BUDGET REQUEST AND KEY ACTIVITIES

The President's fiscal year 2009 budget request for this program is \$494.7 million. The committee will note that this amount is significantly less than the \$1.2 billion for fiscal year 2009 that I presented to the committee last year as the amount needed to achieve the best achievable opening date of March 2017. This fiscal year 2009 funding request reflects what the administration sees as the realities of the effects of the current discretionary spending budget caps on this program. Because the funding mechanism established by Congress for the program when it established the Nuclear Waste Fund is not currently available to offset appropriations for this program, we have limited our budget request to an amount that is needed to support the process to attain a Construction Authorization from the NRC and to continue some of the other critical path activities. We believe that unless Congress addresses the funding mechanism issue for this program by acting affirmatively on the proposed legislation this administration has sent to Congress, it is unrealistic to expect Congress to appropriate the significant increases in funding needed to open the repository in the shortest possible time (i.e., by 2017). We are therefore re-baselining the Program schedule and budget authority cash flow projections to reflect what we expect to be flat funding until the NRC issues the Construction Authorization. I will provide this revised information to the committee when it is completed.

Fiscal year 2009 will be the first year of a multi-year license defense process. Following an acceptance review by the NRC, it is anticipated that the NRC will docket the License Application, thus beginning the formal licensing phase that is anticipated to last 3 to 4 years. In fiscal year 2009, our objectives are to:

- Defend the License Application for the repository before the NRC;
- Begin detailed design for the facilities required for receipt of spent nuclear fuel and high-level radioactive waste at the repository;
- Continue essential interactions with State, local, and tribal governments needed to support national transportation planning;
- Complete efforts to finalize the contour mapping and the layout of the rail line to support land acquisition and complete a right-of-way application for the Nevada rail line;
- Continue design and licensing work on the Transportation, Aging and Disposal (TAD) canister system;
- Continue staffing and training the OCRWM organization so that it has the skills and culture needed to design, license, and manage the construction and operation of the Yucca Mountain project with safety, quality, and cost effectiveness; and
- Continue planning and designing a compliant and well-integrated safeguards and security, safety, and emergency management program.

In addition, the budget request also includes funds for the following activities:

- Funding for payments-equal-to-taxes to the State of Nevada and Nye County, Nevada, where Yucca Mountain is located. Our fiscal year 2009 request also includes oversight funding for the State of Nevada, affected units of local government and an affected tribe, as well as funding for the University System of Nevada and Nye County, Nevada, and Inyo County, California for independent scientific studies;
- Funding for cooperative agreements with State regional groups and other key parties involved in transportation planning; and
- Funding for Program direction which supports Federal salaries, expenses associated with building maintenance and rent, training, and management and technical support services, which include independent Nuclear Waste Fund audit services, independent technical and cost analyses, and University-based independent technical reviews. We also have included funding to begin the upgrade of obsolete data storage systems which house the scientific data collected over the years of this program; this significant asset is now at risk of loss.

IMPLICATIONS OF NON-ACCESS TO THE NUCLEAR WASTE FUND

The NWPA establishes the requirement that the generators of high-level nuclear waste must pay for its disposal costs. As a result, the Nuclear Waste Fund was created and is funded by a 1 mil per kilowatt-hour fee on all nuclear generation in this country. As of today, the Fund has a balance of approximately \$21.0 billion which is invested in U.S. Treasury instruments. The Government receives approximately \$750 million per year in revenues from on-going nuclear generation and the Fund averages about 5.5 percent annual return on its investments. At the present time, due to technical scoring requirements, appropriations for the Yucca Mountain repository have a significant negative impact on the Federal budget deficit. Specifically, the monies collected are counted as mandatory receipts in the budgetary process, while spending from the Nuclear Waste Fund is scored against discretionary funding caps for the Department. In legislation the administration submitted to the 109th Congress and has submitted again to this Congress, the President proposes fixing this problem by reclassifying mandatory Nuclear Waste Fund receipts as discretionary, in an amount equal to appropriations from the Fund for authorized waste disposal activities. Funding for the Program would still have to be requested annually by the President and appropriated by the Congress from the Nuclear Waste Fund.

Sustained funding well above current and historic levels will be required if the repository is to be built. Funding at current levels in future years will not be adequate to support design and the necessary concurrent capital purchases for repository construction, transportation infrastructure, and transportation and disposal casks. The development of a credible schedule for the program is highly dependent upon a steady and reliable funding stream.

The Department estimates that U.S. taxpayers' potential liability to contract holders who have paid into the Nuclear Waste Fund will increase from approximately \$7.0 billion to approximately \$11 billion if the opening of the repository is delayed from 2017 to 2020. The calculation of potential costs to taxpayers is a complex matter that depends on a number of variables that change year to year, however, on average the liability will increase \$500 million annually. The Department has not attempted to calculate precisely what these costs would be if the opening of the repository were delayed beyond 2020. There will also be added costs associated with keeping defense waste sites open longer than originally anticipated. The Department has not yet estimated those costs. It can be seen, however, that each year of delay in opening the repository has significant taxpayer cost implications, as well as the potential for delaying construction of needed new nuclear power plants. Therefore, the administration believes it is in the Country's best interest to expedite construction of the repository and the transportation infrastructure necessary to bring both defense and commercial spent nuclear fuel and high-level waste to Yucca Mountain.

SUMMARY

In summary, the President's fiscal year 2009 budget request will provide the needed funds to defend the License Application for a Construction Authorization of a geologic repository for disposal of spent nuclear fuel and high-level radioactive waste at Yucca Mountain. The significant reductions in appropriated funding for fiscal year 2007 and fiscal year 2008, however, have negated the Department's ability to meet the March 2017 best achievable opening date. Each year's delay beyond the March 2017 date will result in increased potential taxpayer liability to utility contract holders as well as increased costs for storage at defense waste sites across the country. I respectfully urge the Congress to consider and pass the President's fiscal year 2009 budget request for the OCRWM.

EM BUDGET SHORTFALLS

Senator DORGAN. Mr. Sproat, thank you very much. Mr. Rispoli and Mr. Sproat, I was just observing to Senator Domenici that some while ago, some years ago, former Congressman Mike Parker was working for the Corps of Engineers representing the administration as an appointee. He came to Congress and in a disarming moment of candor, he said that we don't have enough money in the budget to do what we need to be doing. The next morning he was fired.

I understand your role here today. Your role here today is to come up and defend the administration's budget. I understand that.

But, Mr. Rispoli, your job is to clean up the mess from all of these nuclear weapons plants that were spread around the country. The plants have created an environmental hazard that's dramatic. So we've got to clean them up and the job of Environmental Management is to clean up all those plants.

Hanford, for example, my colleague from Washington is here. And the fact is we have made agreements and reached agreements on milestones to clean them up. And the fact is this budget doesn't even allow you to reach the milestones that have been previously agreed to. Is that not the case?

Mr. RISPOLI. Senator, that is the case for there are milestones in jeopardy both for budget reasons as well as for other technical reasons. So yes, that is the case. And that has been acknowledged actually in the President's budget that was submitted to the Congress.

Senator DORGAN. I don't understand why a portion of it is missing from the milestones that we've contractually agreed to meet. We've said here's what we're going to do. And then we don't ask for the money for it. Is it because it's less important than something else?

And, as I have indicated your budget has decreased \$1.75 billion over the last 4 years even as the cost of all of this has grown substantially. I mentioned earlier that the President proposes \$1 billion less in water projects for this committee, the Corps of Engineers, and Bureau of Reclamation. We're not going to do that.

I assume that someone downtown understands that we have an obligation to meet these milestones. And so there must be delivered under funding hoping we'll put the money back in, in order to meet our contractual obligations. Is there currently a proposal that you'll be laying off up to 600 people because of the lack of funding?

Mr. RISPOLI. Mr. Chairman, there would be approximately that number of people that could be looking at work force adjustments. It doesn't have to be that high. We're evaluating alternatives with several of our site managers now to see whether or not we can smooth out and minimize any reductions. It's not the pure number that we worry about. It's the loss of the skill.

We have people that are very, very skilled and experienced at what they do. And we don't think it's healthy for the program to have perturbations that have sharp drops and then have to try to hire people back.

Senator DORGAN. Yes. I complemented you Mr. Rispoli in my opening because I think this is a tough job. And you've tried very hard and in many areas have succeeded, but I think it is unfair to you and the people that are engaged in your mission not to have the funding that will allow us to meet what we have already obligated ourselves to do. You know, we're going to have to try to think through that here on the subcommittee.

YUCCA MOUNTAIN LICENSE APPLICATION

Mr. Sproat, the license application that you are submitting. You're going to be submitting that before June 30. How has the

2008 budget that we passed impacted the content of the license application you're submitting this year?

Mr. SPROAT. It has not impacted the content or the quality of the license application that we'll be submitting primarily because we recognize that is the highest priority the program had. It's on the critical path to repository construction. And so we diverted resources from other parts of the program to make sure that we had the right people and retained the right people in scientific expertise and engineering expertise needed to put together a high quality license application to meet our commitment date of submitting that by June 30, of this year.

Senator DORGAN. If you submit a license application for Yucca Mountain and the Nuclear Regulatory Commission ultimately authorizes construction, can the Department of Energy begin construction of the repository without any changes to existing law and can DOE begin transporting and disposing of nuclear waste in the repository without changes to existing law?

Mr. SPROAT. No, Senator, there will be additional changes required. Specifically, the Nuclear Regulatory Commission would not give the Department a construction authorization until Congress had legislated land withdrawal for the geologic repository operations area or GROA, around the Yucca Mountain site, even though it's federally owned land to withdraw the land, similar to what was done with the Waste Legislation Pilot Project in New Mexico. Congressional legislation is required so that the Secretary of Energy can show to the Nuclear Regulatory Commission that the Department has total ownership and control of that land in perpetuity.

Senator DORGAN. Do you agree with Senator Domenici's implied suggestion in his opening statement that a Yucca only policy is leading us into a box canyon of sorts?

Mr. SPROAT. What I would say is I think the primary thrust of the Senator's point is that there is a lot of residual energy in commercial spent nuclear fuel. And to put it directly underground as waste or dispose of that energy content doesn't make sense, I think is a very valid point.

What I would say, though, is this is not an either/or question. That under any scenario, even if we go to fuel recycling of spent nuclear fuel, there is high level nuclear waste residual from that. And we currently have a significant inventory of high level nuclear waste from the Defense Program and the naval spent nuclear fuel from the naval reactors that needs to go into a deep geologic repository regardless of what we do with the commercial spent nuclear fuel inventory.

Senator DORGAN. Senator Domenici?

SPENT FUEL DISPOSAL

Senator DOMENICI. Mr. Chairman, thank you for laying the question directly before Mr. Sproat. Let me make sure the record is clear from my standpoint. Your statement that even if we go, we have a recycling facility, and I would assume we're both talking when you say recycling, we're talking about the French model perhaps. There is, the British have one too.

But let's talk about the French model. If in fact that was used, the residual, the ultimate waste to be disposed of is nothing like spent fuel rods, right?

Mr. SPROAT. That is correct.

Senator DOMENICI. It is much less toxic in terms of its half-life, right?

Mr. SPROAT. That is correct.

Senator DOMENICI. It is far less in quantity than the quantity that is the spent fuel rod quantity, right?

Mr. SPROAT. Well, Senator, in terms of the high level waste, that's correct. However there are additional waste streams out of the recycling process greater than Class C waste and there are significant volumes of that that are produced.

Senator DOMENICI. Yes, but the point that I make is that you don't need a Yucca Mountain type repository for most of the waste that is part of the residual of recycling. In fact, you could if you wanted to without any question, you could put it in the salt of Carlsbad, most of it.

Mr. SPROAT. Under, if the law was changed to allow that, yes. However——

Senator DOMENICI. But wait, I'm not talking about WIPP, I'm talking about salt.

Mr. SPROAT. While salt is a great medium for storage of high level waste and for isolation from the environment, and the Germans are using salt beds, the problem is, is that under current U.S. regulations, under the Nuclear Waste Policy Act, retrievability is a requirement. In other words——

Senator DOMENICI. I understand.

Mr. SPROAT. Salt is not a medium that makes retrievability very easy.

Senator DOMENICI. We're not going to ask the Congress to authorize the building, Mr. Chairman, of a recycling facility and leave all the other laws in place. We would change the law at the same time that you were referring to. There's no need to have the ultimate waste that would come from recycling, that small amount of modest level waste. It's not a high. There's no need to have it retrievable. That law was——

Mr. SPROAT. That's correct.

Senator DOMENICI. The reason for that law was we were putting in the ground very valuable sources of energy and it was stupid to put it in and lock it up because someday we might find that we take it out, like they are in Russia. They use it. But they recycle it and use it or in any event that's the answer to your question.

I want to thank you very much for what you've done for the country. And I'll ask you the questions. You could not have done this, you could not be where you are without the good people at Los Alamos. Is that correct?

Mr. SPROAT. At Los Alamos and Sandia.

Senator DOMENICI. Sandia is the leader.

Mr. SPROAT. Sandia National Laboratory is our lead lab on the post closure scientific analysis. They're the ones who have integrated all the 20 plus years of scientific data and put together the analysis that's contained in the licensing application. They've done an outstanding job.

Senator DORGAN. Mr. Chairman, would you yield on that point? I complemented Mr. Rispoli. Let me also say I neglected to say how much I appreciate the work of Mr. Sproat. That's a tough job that you took on and I appreciate it very much.

Mr. SPROAT. Thank you, Senator.

Senator DOMENICI. Thank you, Mr. Chairman. I tell you that when he told me some time ago he would get it done. And when those troops up there at Sandia said they'd get it done, I said you won't. The first time I wanted to scream at you all and you were right. You did it.

Mr. SPROAT. Thank you.

Senator DOMENICI. So far. We'll see what they say over there.

MISSED COMPLIANCE AGREEMENTS MILESTONES FINES

Mr. Rispoli, let me just get square on record so we'll know. Who will pay the fines, fines that may ensue in New Mexico for the failure to meet the court agreed time on clean up at Los Alamos. You know they have an environmental man who imposes hearty fines. Are you all going to pay or do you expect the laboratory at Los Alamos to pay it?

Mr. RISPOLI. In the past the fines have been paid either by the Department or by the contractor that operates the activity depending upon the basic reason for missing the milestone or violation of the agreement. If it were, for example, purely a budget driven reason then I would expect the United States Government would pay for it from our budget. If on the other hand, a milestone were missed because of some technical difficulty or a different interpretation, for example, of the requirement, then typically the contractor would wind up paying for that fine.

Senator DOMENICI. As a result of this budget can you tell me how many of the milestones you anticipating missing and the resulting delays this may have on project completion? And since that's a very big number, would you just do that on Los Alamos, please?

Mr. RISPOLI. At Los Alamos, we would expect to miss because of budget, three milestones. And we anticipate that the cost to accomplish those three milestones would be about \$100 million. I would also point out that at any given time, we are tracking over 1,500 milestones in our program. At any given time over 1,500, typically 250 a year.

And that does not include some intermediate milestones that the sites also track because they're so small that they are just on their schedules. So, yes, we will be looking at milestones throughout the complex. But I do want to state for the record that we basically renegotiate milestones rather regularly, as there are technical difficulties or in some cases the regulator can't review the documents fast enough.

Senator DOMENICI. Yes.

Mr. RISPOLI. So I just wanted to point out that it's a huge number of milestones that we deal with. And that for the number missed, we basically try to do that as best we could from a risk prioritization method.

Senator DOMENICI. Now, let's stay with the one in Los Alamos. It's—if you miss the milestone there is there any serious risk if the milestone is reset in that particular clean up project?

Mr. RISPOLI. If we are in jeopardy of missing milestones we do, in all cases, attempt to negotiate, meet with the regulator to see whether they would have us reprioritize the resources we have. So without answering specifically to any of the milestones that we're looking at this year, we would always dialogue with the regulator to see whether we should do some that we thought would be a lower priority but perhaps in their view would be a higher priority. And I will state that we do that across-the-board with the regulators in all our States.

Senator DOMENICI. So this serious risk at Los Alamos, that would be readjusted.

Mr. RISPOLI. Yes, sir.

Senator DOMENICI. With others in mind.

Mr. RISPOLI. That is correct, Senator.

Senator DOMENICI. Can you keep us posted on that?

Mr. RISPOLI. Yes, we can.

Senator DOMENICI. Through the committee if you'd like so the chairman could know also.

Mr. RISPOLI. Yes, we can.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator DORGAN. Senator Craig.

Senator CRAIG. Thank you, Mr. Chairman. Mr. Rispoli, let me pick up where Senator Domenici left off. You're obviously calculating the potential for fines with milestones missed. So, system wide, how much would that figure be if there was a refusal to renegotiate? You just simply missed a milestone, paid the fine. Have you calculated that?

Mr. RISPOLI. We've run numbers for the milestones that are in jeopardy. We don't know that all of them would be missed. And in fact we're in the process of renegotiating some now.

Senator CRAIG. Ok.

Mr. RISPOLI. But if all were missed it would approach \$10 million, if all were missed.

Senator CRAIG. Ten million dollars?

Mr. RISPOLI. It would approach that number, yes, Senator.

Senator CRAIG. You know you're down \$94 million in the Idaho clean up. And, you know, I guess my sadness there is you've done so well. And I mean that as a compliment.

And you ought to be complimented for it because you have done well. And Idaho has recognized it and applauded it. And it's given the lab a level of recognition that is very, very important.

We were never a weapons lab. We don't have the kind of legacies, if you will, that some do. But we do have legacies. We've obviously got the legacy of Rocky Flats.

And we're also very proud. We cleaned up Rocky Flats where we did that by moving it out of Idaho. And we're going to miss a milestone or two in Idaho. At least that's what we're being told could be the consequence of this \$94 million reduction.

So, Mr. Chairman, when you talk about frustrations as Senator Domenici and I do, I mean, that's all part of it. Also as you know, I've been pushing to take lab waste, move it over to EM and I understand the frustration of that. I understand there's going to be a response coming forward sooner rather than later.

What if Congressman Mike Simpson and I just simply legislated it? Just said here it is. Now the argument is you won't take it because there isn't any money.

But at the same time the other side of the lab has a different mission than EM. It is an EM problem, ultimately. So why don't we just line it up appropriately and if you can't do it because of money then what would be wrong with us just in a conference report of a report simply saying, here it is. It doesn't change the status of it. It just simply changes your responsibility in relation to it.

Mr. RISPOLI. Senator Craig, I might mention that we actually put out a call to all departmental elements including the Office of both Nuclear Energy, NNSA, and the Office of Science. All of them have proposed transfer to EM of both facilities and materials. And we are evaluating that now.

Sometime during this summer we should know. We need to be able to put a dollar amount on it.

Senator CRAIG. Yes.

Mr. RISPOLI. Or a range, a dollar range. We don't really even know yet what that would be until we finish the evaluation of what's been proposed. It's actually over 200 facilities and a lot of materials that are still in those facilities.

Senator CRAIG. Well, if you can get that done by this summer, you'll probably beat us legislatively because we're at a bit of a stall out here. And at the same time remember that money is not necessarily the treater. Because you've already demonstrated you're willing to cut back or have to cut back budgets on EM and not meet milestones.

So what we're talking about in Idaho is doing this. Now this does not cost money. And nor has it changed the status of the need. It has simply changed who handles it.

Mr. RISPOLI. Yes, sir.

Senator CRAIG. I don't see that as a money issue. I see that as an appropriate realigning in relation to responsibilities. Am I wrong?

Mr. RISPOLI. I understand. And I don't disagree. I think what this will enable us to do by assembling it all and quantifying it and putting a cost range, it will enable us to include it in our multiyear program.

You can only take two points of view. One is that you pretend it's not there. And the other is that you recognize it is there and work it into your program.

Senator CRAIG. Sure.

Mr. RISPOLI. And we take the view that we want to recognize what's there and incorporate it into our program, quantify how long it will take and what the cost is. So that's the approach we're taking.

Senator CRAIG. Well, that's—it's important we do that. And let me say again, thank you. Work well done, a great reputation out in Idaho for the clean up that's underway. I'm saddened that all of a sudden we are consciously intending to miss milestones at a time when we're trying to build credibility and reputation as it relates to DOE's responsibility and handling of it.

Very quickly, Mr. Chairman, Yucca Mountain. Listen to what the Director has just said. There is a legacy out there that has to be dealt with.

You need to come to Idaho and look at our lab and look at the phenomenal volume of military waste we have there. We store almost all of the Navy's nuclear waste. It's cladding is such that it must be stored. It cannot be recycled.

Now there is a responsibility. There is a national responsibility that that be handled in a permanent way. I understand the politics of Yucca Mountain.

But I complement Mr. Sproat for doing exactly what he said he could do and he's delivering. And we have an obligation, I believe, to carry forward to determine. We may be recycling.

And I agree with Senator Domenici, we ought to. The commercial spent fuel ought to be moved into a recycling mode. But following that there will remain a need for a permanent, deep, geologic repository for certain types of waste of the waste stream of clean up and also our military waste. We have—we're now mostly bringing in about of its wet storage into dry storage.

But I'll invite you to Idaho. There are a lot of shiny little vessels out there that are a great history that we're very proud of, our nuclear navy. And we have every reason to be proud of it. But we have every responsibility to take care of that waste stream.

My position on Yucca Mountain simply cannot change, nor will it change as long as I'm here. And afterwards as an advocate for the industry there will be a need for a type of repository that Yucca Mountain or something like it will demand. Even a contemporary new nuclear industry 50 years out fully bound to recycling.

Where do we then finalize the last of that legacy? You do it in a permanent storage facility. In the case of what we're doing at Yucca Mountain, we've moved that along in under tremendous political odds. And I think the Director needs to be complemented in that work. And I thank you.

Thank you, Mr. Chairman.

Senator DORGAN. Senator Murray.

ENVIRONMENTAL MANAGEMENT FISCAL YEAR 2009 BUDGET REQUEST

Senator MURRAY. Thank you very much, Mr. Chairman. And I, of course, thank you both for the work you've done. However, I've heard the word sad used about this budget request. I almost can't believe the low budget request for Environmental Management, and I just think it's disgraceful.

There's an ongoing debate here on Capitol Hill right now about the cost of war in Iraq and Afghanistan. And we're still talking about cleaning up the waste that was left over from World War II and the cold war. This is the fourth year in a row that the administration has requested a budget lower than a year before. And the second year Congress has received a budget from the administration that is clearly non-compliant to meet the milestones across the States.

You know this is not a partisan issue. It's not a regional issue. It really is a moral and a legal obligation that the Federal Government has to clean up and properly store dangerous waste across the country.

Mr. Rispoli, several years ago, before you were working on this issue, there was an agreement to work on these clean up problems with a plan that was called Accelerated Clean Up, which really called for a focus on cleaning up and closing the less complicated sites so that we could shrink the total size of the complex. But it left a lot of serious issues out there. And the funds that were no longer needed to clean up those smaller sites were then supposed to be used for the larger sites without a reduction in the overall EM spending.

Now working with my colleagues on the Senate Budget Committee this year we worked hard and we passed a budget that increases EM by about \$500 million. But that is only the start of the work that needs to be done this year to properly address the portion of the funds that are needed. We cannot continue to have the administration send us declining budgets and expect miracles to occur here in Congress to add funding and then veto those appropriation bills because they're over the President's budget request. It just can't happen.

So, Mr. Rispoli, I just have to ask, are you proud of this budget?

Mr. RISPOLI. I think, Senator, any budget process is difficult. I think it's true that in all the programs that you evaluate as Members of the Senate, you probably see most of them that could use more than they have. But at some point—

Senator MURRAY. But these are meeting legal obligations.

Mr. RISPOLI. These are to address milestones that have been negotiated over many, many years. I think we are in dialogue with all of the States. As I indicated, to address from a relative risk standpoint, which of them need to be done and which can be postponed a bit, if you will.

I would point out for example at Hanford at the beginning of this administration there was \$1.2 billion per year going to Hanford. Now there's \$2 billion per year going to Hanford. Even as—

Senator MURRAY. Overall complex, the big plants being built. At it's river corridor clean up, it's a complex site. These are expectations that happen to be in my State, but the country needs this cleaned up. This is a nuclear waste site.

Mr. RISPOLI. Yes, we agree with that. And with respect to the river corridor, I think we are making tremendous head way with ground water. I'm sure—

Senator MURRAY. I'll ask you about that in a minute, but let me go back. Do you think this budget request is adequate for EM overall?

Mr. RISPOLI. The President's budget in writing as submitted to the Congress acknowledges that the budget request will result in putting milestones at jeopardy both for budget reasons and for technical reasons.

Senator MURRAY. It almost feels like there's this little conversation going on in the White House where they send over a budget request that's less than adequate in many, many ways, knowing that we're going to do our job because we represent States that are going to have disasters if those sites aren't cleaned up, and we're going to add the additional dollars. Then there's another room in the other part of the White House where they're saying veto every appropriation bill that's over the administration's request. Those

two rooms better start talking to each other because we have potential disasters coming.

I'm not just saddened by this budget request, I'm angered by this budget request. We have an obligation to clean up these sites.

EM FISCAL YEAR 2009 BUDGET PRIORITIES

Let me ask you about the river corridor closure. That is a project that is performing well. It's ahead of schedule, and it's on budget. The workers have made great progress, decommissioning and demolishing the buildings in the 300 areas that cocoon the reactors along the Columbia River, cleaning up the burial sites.

That sounds really successful to me. Yet the budget, this budget, that you sent us cuts that funding by \$77 million. I do not understand why we're going to pull the rug out from under a high performance project.

Now, you said you increased groundwater funding by \$60 million. But I have to ask, how do you expect the workers to get at the ground water when the buildings are still sitting on top of those sites?

Mr. RISPOLI. Senator, I think we are paying a lot of attention to groundwater. We are focusing on the highest priority locations as are shown on this map of the Hanford reservation. There's also a photo before you that shows that in the 300 Area alone we've taken down over 200—

Senator MURRAY. I know that. But until we take those buildings down we can't get to the ground water. So undercutting that project by \$77 million means we can't get to the ground water.

Mr. RISPOLI. What we are prepared to do is negotiate with the State. And if the State believes it's a higher priority for us to shift funds to tear down buildings, we can certainly discuss that with them. But I do believe that the commitment that the Secretary has shown to the Waste Treatment Plant, one of the largest public works—

Senator MURRAY. That's not fair to dump it on the State. When the administration asks for \$77 million less for river corridor closure what it truly means is that there will have to be layoffs this summer. Once the appropriation bill is written with additional dollars it will be too late. Somehow we're supposed to find these people again a few months later and hire them back.

These jobs are dangerous. And we have to have, as you said a few minutes ago, people who are highly skilled doing them. I don't understand how we can manage these complex jobs that are out there and just say we'll negotiate with the State. This is in my State, but this is a national project.

Mr. RISPOLI. Senator, with all due respect I wasn't meaning to dump anything on the State. I think we, and the State, have a very, very formidable challenge in Washington. I think we recognize that Hanford is probably the most significantly contaminated site we have.

And I believe that it's important that we and the State work together. We have over 10,000 workers there just in the environmental program that are residents of that State, working very, very hard to deliver the good work that they're delivering. I think

the reality is that when your needs exceed the budget amounts you have to use some sort of a prioritization.

Senator MURRAY. When our needs exceed our budget amounts, somebody over in OMB decides a random budget amount and then says anything above that is just a need someplace. These are clean up sites. This is nuclear waste. These are projects that are highly complicated.

Mr. Chairman, I just think we're playing with fire here the way these have been volleyed back and forth. I'm out of time. I do have some other questions, but I will wait until the next round.

Senator DORGAN. Well, Senator Murray, I understand your passion and concern. I share it. I don't know whether you were here when I mentioned about former Congressman Mike Parker. But when he showed up and expressed dissatisfaction with the President's budget he lost his job the next morning. So I guess neither of us probably expects someone from the administration to come and say that they're short of money.

But it's pretty clear to me that this budget, Mr. Rispoli, does not give you the resources that had previously been committed to be spent to meet milestones. And if we live in a State, as Senator Murray does, where we have very substantial clean up obligations, there's every reason to be angry about that. When the Government makes commitments, the Government should keep its commitments.

And there's plenty of money for other priorities of the administration, but this apparently is less a priority. I think that we're going to have to, as a subcommittee, try to determine how we allocate our resources this year. It's hard to do. As I indicated we're short of money in a wide range of areas given the President's budget request. But we're going to work hard to try to reallocate this funding to meet the obligations that we believe we have.

Senator Murray, if you wanted to ask additional questions I'd be glad to recognize you.

Senator MURRAY. Well I appreciate that and I know that you need to move on. I did have some questions about the VIT plants and supplemental treatment. I would like to submit them and I really would appreciate a response back.

On a good note, the B reactor is open for tours. I know we're getting great response out there at the site. I understand that the 2,064 seats were filled in less than 24 hours. In my State we would say those tickets sold out faster than a rock concert, even if they're free.

I do think that the B reactor is an important piece of history and I hope that we can continue to work with all of you to make it more available for the public. It's an important site, and it's an important part of our history, good, bad and ugly. I think it's important that future generations see what some of the people sacrificed there, what they gave up and the ingenuity that this country came to at a time of great importance.

I will submit my other questions for the record and thank you very much.

Senator DORGAN. Senator Murray, thank you very much. I want to mention, Mr. Rispoli, before you testified I had an opportunity to view these photographs and what the photographs demonstrate

to me is that money spent on this clean up is very important. When we clean up a site, that's real progress and real value.

So this isn't a debate about money that has little consequence. The expenditure of the money and the completion of the clean up is a very significant event. And you show some of that in these photographs. Although it looks like you took one of the photographs during the winter and the comparison in the spring, which gives it a slightly different look, Mr. Rispoli. But nonetheless, I think that this is very helpful to the committee. And we appreciate your work.

Let me say to both of you, we likely will be back in touch with you as we move toward a mark up to solicit additional information about both of these programs and priorities because we're going to have to find a way to sift through the President's recommendations and come up with a set of recommendations that represent what the committee feels the appropriate priorities are.

ADDITIONAL COMMITTEE QUESTIONS

I would like to ask at this time that the subcommittee members submit any additional questions they have for the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. JAMES A. RISPOLI

QUESTION SUBMITTED BY SENATOR PATTY MURRAY

THREE HANFORD PROCUREMENTS

Question. Mr. Rispoli, my understanding is that the decisions regarding the award of two of the pending Hanford contracts—Central Plateau and Tanks Farm Operations have been delayed again. Additionally, there seems to be an indication the Mission Support Contract will be awarded last rather than first as originally expected. There is much uncertainty with these three large contracts yet to be decided and I'm looking forward to the day when Hanford has a full complement of Federal managers and all the major contracts awarded and running with adequate funding. With cleanup schedules and funding as tight as they are I would certainly like to see teams in place that have solid track records of staying on time and on budget.

Having the Mission Support contract in place prior to awarding the Central Plateau and Tank Farm Operations would seem to offer an efficiency and ease of transition for the workers. Would you please explain the reason behind the order of the award of the contracts?

Would you please provide an outline of the timing of the three contract awards and when they would be in place and running?

Answer. With the recent award of the Tank Operations Contract on May 29, 2008 and the Plateau Remediation Contract on June 19, 2008 and the Mission Support Contract on track for a projected award in July–September 2008 time frame as originally forecasted, this next generation of contracts will continue the important cleanup work conducted on the Hanford Site Central Plateau.

The order of award is based on the uniqueness of each procurement, the evaluation process leading up to award along with the Department's efforts to minimize disruption to ongoing work while improving overall efficiency. Maintaining the cleanup momentum is one of several important considerations to the Department. Impacts are minimized given the specific scope of work contained in each of the three new contracts, detailed contract requirements for each contract transition, and a 90-day transition period that provides the flexibility to overlap each of the contract transition periods. Departmental planning for contract transition has considered the logical alternatives for contract award sequence, and can support award of the three contracts in any sequence

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

LANL CLEANUP

Question. Secretary Bodman has testified earlier this year that the fiscal year 2009 EM budget is short across the board, and that there will be missed milestones. In particular, it has come out in subsequent testimony that the funding for environmental cleanup work at Los Alamos National Laboratory is short \$100 million for fiscal year 2009. Who will pay for the expected fines that LANL will get from the State of New Mexico? Will it come out of planned cleanup dollars, further exacerbating the problem? As a result of this budget, can you tell me how many of the milestones you anticipating missing and the resulting delays this may have on project completion?

Answer. It is important to recognize that some milestones and obligations would have been missed regardless of the budgetary approach and the level of funding that was chosen. This is primarily the result of the relevant agreements having been negotiated years ago with incomplete knowledge by any of the parties of the technical complexity and magnitude of costs that would be involved in attempting to meet the requirements. Moreover, the cleanup program continues to be impacted by various safety, contract administration, project management, regulatory, legal, technical, economic, and other significant challenges. Consequently, isolating funding as the only issue placing some of the Department's cleanup milestones in jeopardy given the other confounding factors would be inaccurate and misleading.

When a milestone is missed, whether a fine or penalty is imposed is left to the discretion of the Department's regulators. Once imposed, who pays a fine or penalty depends on whose actions are responsible for missing the milestone. In the past, some fines for missed milestones have been paid by the Department, others by contractors. There is no separate appropriation for fines and penalties. Therefore, fines and penalties paid by the Department come out of cleanup budgets.

Of the seven Los Alamos National Lab compliance milestones scheduled for completion in fiscal year 2009, EM anticipates that three are at-risk based on the program's expected performance through fiscal year 2008. Since none of these milestones are on critical path to project completion, their delay will not result in an extension to the project completion date.

RENEGOTIATE LANL CONSENT ORDER

Question. A recent newspaper story reported that Ron Curry of the New Mexico Environmental Department believed that Department of Energy actions seem to indicate that the Department wants to renegotiate and weaken the terms of the clean up agreement between the Department and the State. Is there any truth to this statement?

Answer. No. The Department does not intend to renegotiate or weaken the terms of the 2005 Order on Consent. Rather, we have proposed, within the existing structure of the Consent Order, priorities with a goal of arriving at mutually agreeable opportunities to complete cleanup.

MISSED MILESTONES NATIONWIDE

Question. It is my understanding that this budget puts at risk three milestones at Los Alamos for fiscal year 2009. How many milestones nationwide do you estimate will be missed under this budget and how much funding will it take for Congress to add to recover these milestones?

Answer. It is important to recognize that some milestones and obligations would have been missed regardless of the budgetary approach and the level of funding that was chosen. This is primarily the result of the relevant agreements having been negotiated years ago with incomplete knowledge by any of the parties of the technical complexity and magnitude of costs that would be involved in attempting to meet the requirements. Moreover, the cleanup program continues to be impacted by various safety, contract administration, project management, regulatory, legal, technical, economic, and other significant challenges. Consequently, isolating funding as the only issue placing some of the Department's cleanup milestones in jeopardy given the other confounding factors would be inaccurate and misleading. Of the approximately 120 compliance milestones scheduled for completion in fiscal year 2009, EM anticipates that 32 are at risk based on the expected progress through fiscal year 2008.

WIPP

Question. Today, the Waste Isolation Pilot Plant is operating at full capacity, processing an average of 26 waste shipments per week. This throughput is helping to ensure that sites such as Idaho National Laboratory and Los Alamos National Laboratory meet State-mandated milestones for the removal of TRU waste. Your fiscal year 2009 budget proposes \$211.5 million for WIPP, a 10 percent decrease from the fiscal year 2008 level. This cut will reduce the rate of waste shipments to WIPP. Slowing waste transfers to WIPP means that the material will remain where it was created and delivery milestones will be missed. Mr. Rispoli, why did you propose this reduced funding level? How many State-mandated milestones will be missed? Will there be impacts on storage facilities at Los Alamos and Idaho National Laboratories?

Answer. The EM fiscal year 2009 request reflects the Department's priorities to focus on risk reduction while maximizing regulatory compliance. As noted in the budget request, the proposed fiscal year 2009 funding would allow WIPP to support a disposal capability of 26 waste shipments per week; 21 shipments per week of contact-handle transuranic waste and 5 shipments per week of remote-handled transuranic waste. We do not currently anticipate missing any State-mandated milestones in fiscal year 2009 at any of our sites based on the WIPP program's expected performance through fiscal year 2008. There will be no adverse compliance impacts at the Idaho National Laboratory because the Department is ahead of schedule in meeting the Idaho Settlement Agreement milestones and the Site Treatment Plan targets for processing and shipping transuranic (TRU) waste. At Los Alamos National Laboratory, there are no State-mandated milestones specific to transuranic waste operations, and no adverse storage conditions are expected.

LOS ALAMOS NATIONAL LABORATORY—NATIONAL ACADEMY STUDY ON GROUNDWATER PROTECTION

Question. At the request of the Office of Environmental Management the National Academy of Sciences initiated a study of groundwater protections activities at Los Alamos National Laboratory, which was published last year. ("Plans and Practices for Groundwater Protection and the Los Alamos National Laboratory.") Their recommendations include: completing the characterization of disposal sites; performing additional modeling to understand potential pathways between watersheds and adding monitoring locations in the southern area of the site (and near the San Ildefonso Pueblo lands). Mr. Rispoli, has any decision been taken to act upon these recommendations? What is the status of these efforts? Has money been requested in the fiscal year 2009 budget to support this work?

Answer. Yes, the EM program has developed an implementation plan for the 17 recommendations in the National Academy of Sciences study. Of the 17 recommendations, 13 describe work that has already been done or is ongoing. Funding for these activities has been requested in the fiscal year 2009 budget.

SCIENCE AND TECHNOLOGY

Question. In the "Science and Technology Needs for DOE Site Cleanup" workshop held last year, it was mentioned several times that current EM cleanup contracts actually serve as a barrier to new technology deployment. What is being done within EM to incentivize contractors to deploy new technologies to improve upon the efficiency and effectiveness of future cleanup contracts?

Answer. The Office of Environmental Management is committed to further developing and utilizing an array of contract structures that will provide for the safe and efficient cleanup of our sites, and where appropriate, incentivize our contractors to deploy new and/or innovative technologies and approaches. Our major contracts are structured to incentivize the successful completion of defined mission objectives. As such, our incentives are geared toward rewarding results achieved and not the methods by which those results are achieved. The result of this approach is that our private sector contractors are incentivized to utilize their ingenuity and creativity, including the use of new and/or innovative technologies, as appropriate, in bringing forth the best solutions to our cleanup challenges.

In addition, and on a more specific level, we have recently issued guidance for using a new project management tool, the Technology Readiness Assessment (TRA). The TRA process, as adapted for environmental cleanup, is a tool for understanding, and mitigating, the complexity and risks associated with implementing first-of-a-kind technologies required for the safe and efficient cleanup of our sites. Rigorous application of this tool within the framework of our incentive contracts will enable

our contractors to substantially reduce the risk associated with deploying new and/or innovative technologies.

Question. If additional funding is not secured to enable Los Alamos to meet the milestones prescribed in the Consent Agreement that would result in a 2 year delay in the cleanup milestone, will this have a measurable impact on nearby populations? What impact will this have on the cost of cleanup?

Answer. The budget request provides funding that makes any measurable impact on nearby populations very unlikely. The LANL site is extensively monitored, with thousands of environmental samples routinely analyzed for measurable contamination that could potentially impact nearby populations. These results are reported annually in site monitoring reports. While the potential for accidents cannot be completely eliminated, the Department believes that these risks are also very low. Administrative and engineered controls and operational safety protocols all contribute to the continued protection of the local populations.

The Environmental Management program's goal is to meet the terms of the consent Agreement and finish cleanup at the earliest possible juncture in a cost-efficient manner.

QUESTIONS SUBMITTED TO HON. EDWARD F. SPROAT III

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

IMPLEMENTATION OF E&W DIRECTION TO CONSOLIDATE SPENT FUEL

Question. The fiscal year 2008 Consolidated Appropriations Act, Public Law 110-161, which contains the Energy and Water Division, directed the Department "to develop a plan to take custody of spent fuel currently stored at decommissioned reactor sites." This language is borne out of frustration over the lack of options being considered for addressing out commercial spent fuel options. What is the status of this report and can you please explain to me what options you are considering?

Have you reached out to the communities interested in hosting the GNEP facilities as the public law directs?

Answer. The Department is preparing a report that will discuss what is required to develop an interim storage facility for the acceptance of spent nuclear fuel from decommissioned nuclear reactor sites; we expect to release the report this summer. The report will consider siting options at an existing Federal site, at one or more existing operating reactor sites, or at a competitively-selected interim storage site. While the Office of Civilian Radioactive Waste Management (OCRWM) has not yet reached out to the communities interested in hosting the Global Nuclear Energy Partnership, the report will take into account information the Department has acquired through the efforts of the Office of Nuclear Energy to reach out to such communities.

LICENSE APPLICATION

Question. You appear to have high confidence that DOE's Yucca Mountain license application will be of high quality. However, the Department has had numerous problems with quality assurance in the past. Please describe what standards you have put in place to ensure the application will be of the highest quality and how, during the transition from one administration to another, we can be assured the standards will be maintained.

How long do you estimate it will take the NRC to take to review and approve the license for Yucca Mountain?

Answer. The Department has taken several steps to build quality into the development of the License Application (LA) and we are proud of that work. Specifically, the Department followed a rigorous, disciplined process that included development of the LA in four phases, final LA completeness and accuracy verification reviews, and independent quality control checks and validation. In addition, the Office of Quality Assurance conducted oversight activities in parallel with LA development. Review and approval of the LA was required by all organizations at each of the four phases of development, and senior management from the Federal and contractor staffs were fully integrally and involved in LA preparation and development.

Section 114 of the Nuclear Waste Policy Act requires that the Nuclear Regulatory Commission (NRC) issue a final decision on construction authorization for all or part of a repository within 3 years of the date of submission of the application, except that the Commission may extend the deadline by not more than 12 months if the NRC submits to the Secretary and the Congress a written report explaining the

reason for its failure to meet the deadline. We expect that the NRC will meet its mandated statutory time frame.

YUCCA MOUNTAIN NEXT STEPS

Question. Beyond the resources required for DOE to support NRC review of its license application, have you identified additional activities that should be funded in order to position the Department to begin construction of the repository in a timely and efficient manner should a Construction Authorization be received from NRC? Have any such activities been included in your fiscal year 2009 budget request?

Answer. Beyond funding to participate in the licensing proceeding, the fiscal year 2009 budget request includes funding adequate to execute the minimum set of critical activities which are sufficient to continue to make forward progress on the program. Activities to be funded include continued detailed design for facilities required for the receipt of spent nuclear fuel and high-level radioactive waste; continued essential interactions with State, local, and tribal governments needed to support national transportation planning; completion of efforts to finalize the contour mapping needed to finalize the layout of the rail line in pursuit of land acquisition and completion of a right-of-way application for the Nevada rail line; continued design work on the transportation, aging and disposal canister system; staffing and training of the OCRWM organization so that it has the skills and culture required to design, license, and manage the construction and operation of the Yucca Mountain Project; and planning for a compliant and well-integrated safeguards and security, safety, and emergency management program for the disposal, transportation, and management of spent nuclear fuel and high-level radioactive waste.

Question. When the Yucca Mountain Development Act of 2002 authorized DOE to go ahead and proceed into the licensing process for Yucca Mountain, the Department originally planned to submit a license application to NRC in 2004. This of course has been delayed. It is my understanding that, during the extended period that we have been waiting for the now forthcoming license application you have had significant and regular pre-application interactions with the NRC. Can you comment on what you have learned from these interactions in terms of types and extent of questions you might expect from NRC during their review of your application?

How has what you have learned informed your planning in terms of the resources that will be required for DOE to be in a position to respond to NRC questions in a timely manner?

Also, given this knowledge, what is your level of confidence that, provided you get the resources you believe are required for DOE to be responsive to NRC's review (and NRC's funding requirements are similarly met), that the review can be completed in the 3 to 4 years called for in the Nuclear Waste Policy Act?

Answer. We believe that the pre-licensing interactions have helped the NRC to better understand DOE's approach to demonstrating compliance with the applicable regulations. Also, in some instances these interactions have led the Department to revise its approaches to better meet NRC's expectations. We are not in a position to speculate on the type of questions that may result from the NRC's review of the LA.

The Department's planning relating to the resources that will be necessary to support the licensing proceedings has been informed by past interactions with the NRC, the Department's experience in preparation of the LA, and the Department's experiences in supporting regulatory proceedings and/or litigation in connection with major Federal projects. Subject to the availability of the requested funding, the Department believes that with the submittal of a high quality LA and the available technical Federal and contractor staff that the Department will be able to respond to NRC requests for additional information in a timely manner.

The Department is confident that, assuming receipt of the requested funding, that we will be able to respond to NRC requests for additional information in a manner such that NRC will be able to complete their Safety Evaluation Report within 18 to 24 months. This will support timely issuance by the NRC of a decision regarding construction authorization within the 3 to 4 year time frame.

Question. As you know there is now considerable interest in recycling used nuclear fuel. It is my understanding that recycling removes many of the radioactive constituents from the used fuel and processes them into waste forms having reduced volume as compared to what is originally in the used fuel. Can you comment on the ability of the Yucca Mountain repository to safely dispose of the waste forms that might result from recycling and how this might impact the amount of material that could be stored in the Mountain?

Answer. Until the current law is changed, recycling of spent nuclear fuel will have no effect on the amount of waste that can be disposed of in Yucca Mountain. This

is because the Nuclear Waste Policy Act of 1982, as amended, sets a limit of 70,000 metric tons of heavy metal (MTHM) based on the original uranium content of the fuel. Therefore, regardless of the amount of volume reduction or radionuclide transformation that takes place by recycling, only the amount generated by the original 70,000 MTHM can be placed in the repository. If the law were to be changed to lift that limit, the high-level waste products from recycled fuel in amounts greater than 70,000 MTHM could be disposed of in Yucca Mountain.

The Department is in the process of evaluating the benefits of recycling spent nuclear fuel; however, it is premature to analyze how the various waste forms resulting from recycling might impact the amount of material that could be stored in Yucca Mountain. Further technical information on the characteristics of the waste form is required before such analyses can be performed. Studies prepared for the Global Nuclear Energy Partnership have indicated that the recycling initiative can potentially produce a waste form with less volume and lower heat generation.

NEW NUCLEAR PLANTS

Question. What are the implications of the recent announcements of nuclear power plant license submittals with regard to the Yucca Mountain license application and the utility contracts?

Answer. The recent announcements of nuclear power plant license application submittals to the NRC will not impact the License Application for Yucca Mountain, which is being prepared based upon the current statutory limit of 70,000 MTHM. The announcements similarly will have no impact on the Department's existing utility spent fuel disposal contracts, which were executed in the 1980s.

Notwithstanding the above, the Nuclear Waste Policy Act of 1982, as amended, requires that any applicant seeking a license to construct and operate a new nuclear plant must have entered into a contract with the Secretary of Energy for disposal services, or that the Secretary affirms that such a person be in good faith negotiations with the Secretary for such a contract. In view of the announcements of applications for new nuclear plants, the Department is considering execution of appropriate contracts with interested utilities.

SUBCOMMITTEE RECESS

Senator DORGAN. So we appreciate both of you coming to the Senate today and appreciate your testimony. This hearing is recessed.

[Whereupon, at 10:38 a.m., Wednesday, April 9, the subcommittee was recessed, to reconvene subject to the call of the Chair.]